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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : William Stuart Somers *et al.* Art Unit : 1646  
Serial No. : 09/903,876 Examiner : M. Pak  
Filed : July 11, 2001  
Title : CRYSTAL STRUCTURE OF ESTROGEN RECEPTOR-BETA COMPLEX AND  
USES THEREOF

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Appellants' response to the Examiner's Answer dated May 4, 2006, follows.

The Examiner maintained the rejection of claims 7, 9-11, 16 and 17 under 35 USC § 101 as being directed to non-statutory subject matter. See Examiner's Answer at page 3, item 6, and page 4, items 9 and 10. The Examiner states that the "rejected claims are directed to non-statutory subject matter because the methods do not require a tangible step and the method is performed in the abstract such as a computer visualization of the crystal structure." *Id.* at page 5. Appellants disagree.

As noted in Appellants' Reply to Office Action mailed July 20, 2004, claims 7 and 9-11 (as well as claims 16 and 17) cover *in silico* screening methods. The U.S. Patent and Trademark Office specifically addressed the patentability of such claims in the Trilateral Report WM4, 2002 (hereafter, "the Trilateral Report"). Referring to the exemplary *in silico* screening method claims of case 6, the Trilateral Report states that

the method steps are applicable to a set of structural parameters and the protein whose structure was input. Thus, the method provides a useful, concrete and tangible result that can be used to guide further

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screening. Irrespective of the recitation of specific structural coordinates, the claims are directed to *in silico* screening methods that have a practical application, and therefore the methods are statutory subject matter under the State Street rational." Trilateral Report at page 71, note A1.

In view of the foregoing, Appellants request reconsideration and withdrawal of the rejection of claims 7, 9-11, 16 and 17 under 35 U.S.C. § 101.

Appellants believe the application is in condition for allowance, which action is requested.

No fees are believed to be due. However, any necessary charges, or any credits, should be applied to Deposit Account No. 06-1050, referencing Attorney Docket No. 16163-005001.

Respectfully submitted,

Date: July 5, 2001

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